

cell mesas formed from portions of the semiconductor body between the field electrode structures and including body zones forming first pn junctions with a drift zone;

gate structures formed between the field electrode structures and configured to control a current flow through the body zones; and

auxiliary diode structures with a forward voltage lower than the first pn junctions and electrically connected in parallel with the first pn junctions, wherein semi-conducting portions of the auxiliary diode structures are formed in the cell mesas.

27. The electronic assembly of claim **26**, wherein the first pn junctions are configured to be conductive in a reverse-biased operational state of the semiconductor device.

28. The electronic assembly of claim **26**, wherein a first lateral extension of the field electrode structures along a first horizontal direction parallel to the first surface is at most three times as large as a second lateral extension of the field electrode structures along a second horizontal direction orthogonal to the first horizontal direction and parallel to the first surface.

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